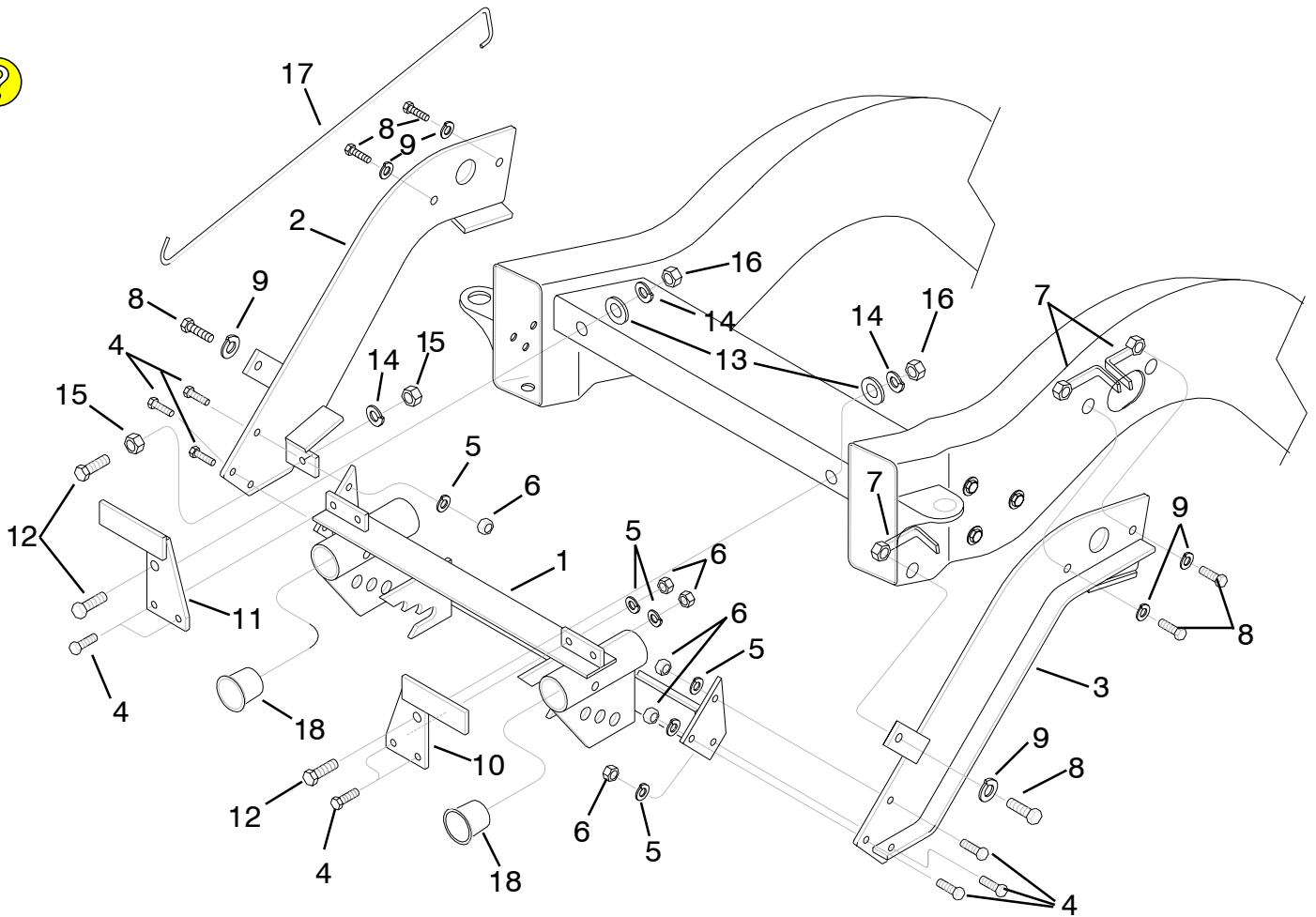




SNOWPLOWS
by Meyer

81012
June 6, 1996

FRAME ATTACHMENT KIT
1996- CHEV/GMC HD 3500 2W.D.



ITEM #	STOCK #	DESCRIPTION	QTY.	ITEM #	STOCK #	DESCRIPTION	QTY.
1	80120	MOUNTING FRAME	1	10	80137	FRONT HANGER (D.S.)	1
2	80122	PUSH ARM (P.S.)	1	11	80136	FRONT HANGER (P.S.)	1
3	80121	PUSH ARM (D.S.)	1	12	* 20164	3/4"-10 X 2" CAPSCREW	4
4	* 20095	1/2"-13 X 1-1/2" CAPSCREW	10	13	* 20359	3/4" FLATWASHER	2
5	* 20329	1/2" LOCKWASHER	10	14	* 20333	3/4" LOCKWASHER	4
6	* 8501001 009	1/2"-13 NUT	10	15	* 8501003 015	3/4"-10 JAM NUT	4
7	* 80128	5/8"-11 NUT W/ HANDLE	6	16	* 8501001 015	3/4"-10 NUT	2
8	* 20139	5/8"-11 X 1-1/2" CAPSCREW	6	17	819000 013	RELEASE HOOK	1
9	* 20331	5/8" LOCKWASHER	6	18	815000 146	REC. TUBE END CAP	2

* ITEMS PACKED IN 80138 BOLT BAG

Diamond Equipment assumes no responsibility for installations not made according to these instructions

Diamond Equipment reserves the right, under its continuing product improvement program, to change construction or design details, specifications and prices without notice or without incurring any obligation.



1996- CHEV/GMC HD 3500 2 W.D. PARTICULAR ATTACHMENTS INSTRUCTIONS PULL AWAY MOUNTINGS

CAUTION: This snow removal equipment should be mounted only on vehicles that are equipped with the vehicle manufacturer optional snow plow preparation package. Mounting snow removal equipment on a vehicle that the vehicle manufacturer does not recommend for snowplowing could damage the vehicle, impair operation and control of the vehicle, and/or may void the new vehicle warranty. Snow Plow Preparation Package information is available from vehicle manufacturers and new vehicle dealers.

GENERAL INSTRUCTIONS: Disconnect the vehicle battery or batteries before beginning installation (**reconnect after installation is complete**). Do not burn holes into or weld pieces onto the vehicle frame. Use extreme caution when drilling any holes in the vehicle to prevent damage to brake lines, fuel lines, wiring, or any other vehicle components. Assemble parts and fasteners "finger tight" until instructions indicate final tightening. After first usage and periodically thereafter, retighten all fasteners to correct torque.

NOTE: 1/2"-13 GRADE 5 fasteners should be torqued to 75 ft. lbs.
5/8"-11 GRADE 5 fasteners should be torqued to 150 ft. lbs.
3/4"-10 GRADE 5 fasteners should be torqued to 250 ft. lbs.

1. PRELIMINARY: Jack the vehicle up from under the center of the frame until the front tires just clear the ground. Place jack stands under the frame to prevent accidental lowering of the vehicle. If the vehicle has an air dam, either remove it completely or cut approximately 35" out of the center of it. Locate the two holes in the front flange of the vehicle frame front cross member. If necessary, ream these two holes out to 13/16" dia. Locate the hole, (not the slotted hole) in the outside surface of each frame rail that is approximately over the center line of the vehicle front axle. (These holes may have plastic covers or caps over them that have to be removed.) Ream each of these holes out to 11/16" dia. Screw a 3/4"-10 jam nut (15) all the way on to each of the 3/4"-10 X 2" capscrews (12). Place each of the 3/4"-10 X 2" capscrew/jam nut assemblies through the hole in the ears on each push arm (2),(3). The heads of the capscrews (12) should be toward the front of the vehicle when the push arms (2),(3) are installed. Fasten with a 3/4" lockwasher (14) and 3/4" jam nut (15) on each capscrew (12).

2. FRONT HANGERS: Install the driver's side and passenger's side front frame hangers (10),(11) onto the front side of the front crossmember with the upper legs of the hangers over the top of the corresponding frame rail. Line up the large holes in the frame hangers (10), (11) with the holes in the crossmember that were reamed out earlier. Fasten each frame hanger using a 3/4"-10 X 2" capscrew (12), 3/4" flatwasher (13), 3/4" lockwasher (14), and 3/4"-10 nut (16).

3. MOUNTING FRAME: Place the mounting frame (1) up under the front bumper of the vehicle with the mounting tabs against the back side of the front frame hangers (10), (11) Line up the two holes in each frame hanger with the two holes in the corresponding mounting tab on the mounting frame (1). Fasten the mounting frame (1) to each front frame hanger (10), (11) using two 1/2"-13 X 1 1/2" capscrews (4), 1/2" lockwashers (5), and 1/2" nuts (6).

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4. **DRIVER'S SIDE PUSH ARM:** Place the driver's side push arm (3) up onto the outside surface of the driver's side frame rail with the rear most hole in the push arm lined up with the hole in the frame rail that is approximately over the center line of the front axle. Install a 5/8"-11 X 1 1/2" capscrew (8) and 5/8" lockwasher (9) through the rear most hole in the push arm and through the hole in the frame rail. Rotate the front end of the push arm (3) up until the hole in the front tab lines up with the lower slot in the outside surface of the frame rail just behind the front spring shackle. Install a 5/8"-11 X 1 -1/2" capscrew (8) and 5/8" lockwasher (9) through the hole in the front tab of the push arm (3) and through the slotted hole in the frame rail. Place a 5/8"-11 nut with handle (7) through the cut out in the lower frame rail around the front spring shackle. Line up the 5/8"-11 nut with handle (7) with the 5/8"-11 X 1 -1/2" capscrew (8) through the front tab of the push arm and frame and screw them together loosely. Place a 5/8"-11 nut with handle (7) through the large hole in the rear section of the push arm (3) and through the slotted hole in the frame rail. Line up the 5/8"-11 nut with handle (7) with the 5/8"-11 X 1 -1/2" capscrew (8) through the rear most hole in the push arm (3), and frame and screw them together loosely. Line up the three holes in the lower front section of the push arm (3) with the three corresponding holes in the mounting frame (1). Attach using three 1/2"-13 X 1 -1/2" capscrew (4), 1/2" lockwasher (5) and 1/2"-13 nuts (6).

5. **PASSENGER'S SIDE PUSH ARM:** Install the passenger's side push arm (2) in the same manner and with the same number and type of fasteners as described for attaching the driver's side push arm.

6. **FASTENERS:** Tighten all fasteners installed up to this point. Adjust the 3/4"-10 X 2" capscrews (12) in the push arms (2),(3) using the 3/4"-10 jam nuts (15) so that the heads of the 3/4" capscrews (12) are tight against the back side of the push angle on the mounting frame (1). Lock the 3/4" capscrews (12) in place using the rear 3/4" jam nuts (15).

7. **DRILLING:** Using the remaining open hole in the rear section of each push arm (2),(3) as a guide, drill a 5/8" dia. hole through each frame rail. Place a 5/8"-11 nut with handle (7) through the large hole in the rear section of each push arm (2),(3) and the slotted hole in each frame rail. Install a 5/8"-11 X 1 -1/2" capscrew (8) and 5/8" lockwasher (9) into each push arm (2),(3) and the drilled hole in each frame rail. Screw the 5/8"-11 X 1 -1/2" capscrews (8) into the 5/8"-11 nuts with handle and tighten.

8. **LIFT FRAME:** Clean paint and burrs from the outside tube ends of the lift frame and the inside surfaces of the receiver tubes of the mounting frame (1).

Special Note: Liberally coat the entire tube ends of the lift frame, the inside surfaces of the receiver tubes and threads of the slack adjusting bolts on the receiver tubes with chassis grease or anti-seize lubricant.

Back off the slack adjusting bolts on the receiver tubes until they no longer protrude inside the tubes. Slide the lift frame into the receiver tubes of the front mounting frame (1) until the fastening holes line up. Tighten the slack adjusting bolts on the **receiver tubes until the lift frame will just slide in and out of** the receiver tubes. Secure the lift frame to the front mounting frame using 5/8" hinge pins (26) and hairpin cotters (27).

9. **LIFT ARM:** Install the lift arm (24) and lift cylinder or electric hydraulic unit onto the lift frame using the 5/8"-11 X 5-1/2" capscrew (25) through the upper lift frame ears and the rear lift arm hole. Place a 5/8"-11 X 4-3/4" capscrew through the front lift arm hole and the ram end of the lift cylinder or electric hydraulic unit. Place a 5/8"-11 X 3-1/4" capscrew through the lower lift frame ears and stationary end of the lift cylinder or electric hydraulic unit. Fasten the three 5/8"-11 capscrews using three 5/8"-11 locknuts (32).

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10. LIFT CHAIN: Attach each end of the lift chain (40) to the two holes in each of the diagonal braces of the pushframe using 7/16"- 14 "U" bolts (41), 7/16" lockwashers (43), and 7/16"-14 nuts (42).

11. PUSH FRAME: Install the pushframe onto the plow blade with the upper and lower pivot holes lined up with the pivot holes in the back of the plow blade. Insert the shorter pivot pin (36) down through the upper pivot holes. Insert the longer pivot pin (39) down through the lower pivot holes. Secure the pivot pins (36), (39) using 1/4" X 2" cotter pins (23).

12. ANGLE CYLINDERS: Install the angle cylinders between the pushframe and the ears on the back side of the plow blade with the rod end of the cylinders toward the plow blade. The elbows in the ports of the angle cylinders should be between the angle cylinders and the pushframe.

NOTE: When installing the angle cylinders on 8' and 8-1/2' plow blades, place four 1-1/4" flatwashers (30) between each lower pushframe ear and the stationary end of each angle cylinder.

Attach the stationary end of the angle cylinders to the pushframe using the two shorter cylinder pins (22). Attach the rod ends of the angle cylinders to the back side of the plow blade using the two longer cylinder pins (44). Secure the cylinder pins using 1/4" X 2" cotter pins (23).

13. PLOW MARKERS: Attach each plow marker (33) to the two holes in the upper outer surface of each end rib of the plow blade using two 5/16"-18 X 1" capscrews (35), 5/16" lockwashers (37), and 5/16"-18 nuts (38).

14. HOOK-UP PINS: Compress each hook-up pin spring (50) slightly and place them between the inner most ear and the center ear on each side of the pushframe with the hole through the center of each spring lined up with the pin holes in the pushframe ears. Insert each hook-up pin (48) through the pin hole in each inner most ear of the pushframe, through the center of the springs (50), and out through the center and outside ears on each side of the pushframe . Compress the hook-up pin springs (50) slightly and secure the hook-up pins (48) using a 1" snap ring (49) in the snap ring groove of each hook-up pin (48). **(The snap rings should be between the end of the spring and the inner surface of each of the center ears on the pushframe.)**

15. PLOW TO VEHICLE ATTACHING: Pull back and lock the spring loaded hook-up pins (48) on each side of the pushframe . Attach the lift chain to the lift arm hooks and lift the back end of the pushframe up level using the vehicle hydraulics. Line up the spring loaded hook-up pins with the corresponding set of holes in the lower part of the mounting frame. Unlock the spring loaded hook-up pins so that they go completely through the holes in the mounting frame and the pushframe ears. Adjust the lift chain at the lift chain hooks on the lift arm so that the plow blade will lift fully and also be able to follow the ground contour while plowing.

NOTE: If the lift chain does not pull evenly, shorten the longer side by attaching at a different link or at half a link where the chain is attached to the pushframe with the 7/16" "U" bolts.

16. PUSH FRAME STOP BOLTS: Screw a 5/8"-11 jam nut (29) all the way onto each of the 5/8"-11 X 3" full thread capscrews (28). Place the capscrew / jam nut assemblies up through the ears on each side of the lower lift frame with the heads of the capscrews down. Fasten with a 5/8" lockwasher (31) and jam nut (29). Adjust the 5/8"-11 X 3" full thread capscrews (28) with the jam nuts (29) so that the heads of the capscrews (28) contact the pushframe before the upper pivot section of the pushframe contacts the lift arm or the lift cylinder / out-front-electric hydraulic unit while lifting plow or stacking snow.

NOTE: If the pushframe is attached to a different set of connecting holes on the mounting frame, the pushframe stop bolts should be checked and may need to be readjusted to prevent the pushframe from contacting the lift arm, or the lift cylinder/out-front-electric hydraulic unit while lifting plow or stacking snow.

CAUTION: CHECK THE TRIPEDGE ADJUSTMENT AT THIS TIME.

- A. THE SPRINGS ARE PROPERLY ADJUSTED WHEN A PIECE OF PAPER CAN BE PLACED BETWEEN THE COILS.
- B. IF THE TRIPEDGE SPRINGS NEED ADJUSTMENT, LOOSEN THE BOTTOM LOCK NUT ON BOTH SPRING ASSEMBLIES. ROTATE THE TOP NUT UNTIL THE SPRINGS ARE PROPERLY ADJUSTED.
- C. BE SURE TO TIGHTEN THE BOTTOM LOCK NUT SECURELY ON BOTH ASSEMBLIES TO THE TOP NUT TO PREVENT LOOSENING OF THE ASSEMBLIES.

NOTICE: Diamond Equipment or Meyer Products assume no responsibility for installations not made in accordance with these instructions.

Instructions are subject to change without notice.